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ABSTRACT

The study reports achievement data over four school years (1978-82) from standardized tests administered to approximately one million students per year in the state of Indiana. The reports show the percent of students performing in each of three bands of stanines--1,2,3; 4,5,6; 7,8,9. Representative grades from primary, intermediate, junior/middle, and high school are included. Subject areas include reading, composition, spelling, social studies, mathematics, and science. All achievement score information comes from reports sent to the state educational agency by each local public school district, as well as each certified private school in Indiana. Overall, Indiana students performed significantly better than national norms in all areas assessed and showed some gains in the years that the state's educational improvement program has been in effect. Achievement shows up slightly better in primary and intermediate levels than at junior/middle and high school. Results in spelling do not show up quite as well as other areas assessed. In general, results contradict current national alarm over achievement in the nation's schools. (Author/PN)

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A COMPETENCY BASED ACHIEVEMENT PROGRAM WITH LOCAL STANDARDS

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In 1978 the Commission on General Education in Indiana wrote a rule entitled "Minimum Standards for School Corporations." The Commission did not declare standards for all systems; instead each corporation was charged with the responsibility of devising its own minimum standards. The program is dubbed CAPPS (for Comprehensive Assessment and Program Planning).

As the implementation of the rule was developed a plan much like diagnostic-prescriptive teaching procedures evolved. Corporations were to assess their classes at grades 3, 6, 8 and 10, in staged achievement areas. Locally established criteria of success were then applied. Deficiencies were noted and teaching plans were established to make up these deficiencies.

The entire system took many corporations back to the drawing board. At what level do we teach each skill? What are our primary objectives at each level? How do we best focus on these? How shall we articulate objectives between grades, across elementary, middle school, high school?

A revolution was in the making! Curriculum committees were formed everywhere. Teachers began sorting out objectives, began talking to other teachers at other levels and, indeed, within the same levels, high school teachers began talking with elementary teachers, and administrators missed Rotary Club meetings to talk with teachers about curriculum content.

The outcome for most corporations was a listing of primary and secondary objectives for each grade level that not only served as a guide to teachers,

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but also facilitated communication with parents and other community constituencies. But most of all, these objectives were the foundations on which corporations set their local proficiency standards for achievement.

Although the system has not been in operation long enough for an extensive evaluation, we believe we have some data now that reflect outcomes of the program which we hope will project into the future. I will report, first of all, changes in state-wide achievement in these initial years of the program; then I will report on how teachers and administrators view the program in general; and lastly, we have some data on how teachers and administrators view their own adequacy in assessment in view of the emphasis the program has placed on assessment.

Changes in Achievement. The program requires that school corporations make an annual report on their achievement assessment for each of the four grade levels 3, 6, 8 and 10. Since the program was phased in by subject area, and language arts was the first area to be instituted, only data on reading and spelling are considered in this report. At the time this report was assembled mathematics had been implemented one year, and other subject areas were still in planning; therefore, reading and spelling alone are reported. This portion of the study was completed by the State Department of Public Instruction.

The data on reading and spelling are given in Table 1. The data there are total reading scores on standardized reading tests. Primarily, the data are from the Stanford Achievement Tests, the Iowa Tests of Basic Skills, the Metropolitan Achievement Test, and the California Achievement Tests. Although some risk is involved in generalizing stanines from one test to another, we

believed the amount of error is equalized across tests, and since gross categories are reported much of any error that might exist is lost within categories.

The data show some encouraging signs for Indiana educators. There are notable improvements in both the intermediate and junior high/middle school achievement levels in both reading and spelling. Reading at the intermediate level increased one percent at the middle range (stanines 4, 5, 6) and two percent at the upper range. At the junior high/middle school level reading increased six percent at the middle stanines and six percent at the upper stanines. Statistical tests were not done on the differences because with these sample sizes minisclue differences will be significant. We were more interested in changes that could be printed in public media and that showed a concensus change. We believe reading provides that kind of data.

Spelling is less impressive, but shows the same trend, i.e., the 80-81 data show fewer children in the lower stanines, a few more in each of the middle and upper stanines. This is encouraging but time and methods invested in spelling probably need some reevaluation.

In sum, the achievement data tied to the first two years of the competency-on-local-standards rule appear to suggest that the rule has had a positive effect. Since no other program, nor major population shift, can be found to account for the changes in achievement, the competency rule seems to be a plausible explanation.

Educators' Response to the Program. To further explore the effect of the competency rule, a wide ranging survey of attitudes about the program was distributed to 2,700 active licensed educators. This part of the study

was carried out by the Bureau of Evaluative Studies and Testing at Indiana University. The persons surveyed were randomly drawn from the files of the State Department of Public Instruction. A sixteen item questionnaire with a return envelope was mailed to each person on the list. Of these 1,468 returned the questionnaire, a 54 percent response without a follow-up letter. Twenty-six of the returned answer sheets were not usable (primarily because of alterations of items), leaving usable responses from 993 teachers, 367 administrators, and 82 who failed to identify their roles.

The results of the survey are given in Table 2. As a result of the competency role, CAPPS, all personnel agreed that teachers were more active in curriculum planning, there was more curriculum planning across levels, more emphasis was given to basic skills, teaching objectives were more definite, more attention was given to remedial work, and parents were better informed of their childrens' progress.

If the program achieved nothing more than this, it would have to be highly endorsed. But other items were also believed to be important outcomes, but less widely agreed upon by the sample. For example, a sizeable number of respondents believed children were achieving better in basic skills, that teachers' instructional strategies had changed, and that remedial programs had improved in quality.

If there were any differences between teachers and administrators it was that administrators were occasionally even more supportive of the outcomes than were teachers. Overall, both teachers and administrators appear to believe the program's positive effects were considerable.

To confirm these findings, visits were arranged for sixteen school corporations randomly selected from a list of corporations arranged by population. Four systems were selected from the largest enrollment quarter

of the list, four from the next largest quarter, etc. Interviewers, with a controlled interview schedule went to the corporations and interviewed teachers, administrators and parents.

The interview data was probably more supportive of the CAPPS program than were the survey results. Although most local personnel found the curriculum and assessment work necessary to organize the program rather tedious, once it was all in place they found the work had been greatly productive. Their conclusions were essentially those supported by the mail survey, i.e., that teachers were giving more attention to curriculum planning, that objectives for each grade level were more definite and that integration across levels was improved, that communication with parents was much better, and that evaluation data was being used to much better advantage.

The Assessment Skills Survey. Since the CAPPS program shifts more emphasis to diagnosis and regular assessment of achievement of objectives, it requires a reasonable amount of measurement skill on the part of all school people. One reason the program may incur difficulty is that teachers and administrators would not have these necessary assessment skills. Therefore, the third phase of the study was to survey the active school people in the state to see how they felt about their measurement abilities. This phase of the study was done by the Evaluation Assistance Center at Indiana State University.

Questionnaires were mailed to 1,200 teachers and 1,200 administrators to ask them to evaluate their assessment skills. Although the return of teachers was not impressive (32 percent) the administrators response rate was 50 percent. Although the teacher response rate was low, the data appear to be

useful if not entirely adequate. The responding teachers were about equally distributed across levels. Junior high/middle school and senior high school were almost identical in numbers of respondents, while elementary teachers were only slightly fewer than at other levels. The sample appeared to adequately reflect opinions across all levels of teaching.

The teacher questionnaires required 82 responses, equally divided between skills the respondents believed they had, and skills they believed they should have. The principals' questionnaire also asked for 82 responses divided between skills teachers should have and skills principals should have. A separate questionnaire was made for the central office administrators which required 106 responses. These items were divided between skills they believed teachers and principals have, and ones they should have.

Since the questionnaires were long, I wish not to report on all items. Only the highlights will be cited.

Teachers felt their assessment skills were less than adequate in test analysis, making test blueprints (tables of specifications), in justifying standardized testing programs, selecting standardized tests, class and curricular application of standardized tests, teaching test-taking skills, use of computers in testing, and the use of essay tests.

Teachers saw themselves as adequate in use of most objective tests, in sharing test results with parents (elementary teachers more so than secondary teachers), in judging the technical proficiency of tests, in preparing students for taking a test, and in managing physical and psychological conditions.

For the most part principals corroborated the teachers' beliefs. However, they believed teachers needed little expertise with selecting standardized tests, but that principals did need considerable expertise in

that area. The principals did believe that teachers need more knowledge of applying standardized tests to curriculum and class activities.

There were twelve items specifically aimed at superintendents (or central office personnel). These twelve items dealt with skills the superintendent (or his staff) have and those they should have. The items dealt with diagnosing curricular strengths and weaknesses, determining teacher and administrator effectiveness, reporting assessment to the public, using tests in curriculum decisions, analyzing tests and using test data, and interpreting test scores. The superintendents rated their knowledge less than adequate on all points. On the other hand they judged their needed level of knowledge to be beyond their skill level for all points.

What does all this mean? It says that for many salient functions of assessment in the schools, teachers, principals and central office personnel see themselves as less than adequately prepared to manage the events they must manage. Further, they are sensitive to their deficiencies. Why are they accepting this condition of disparity? One may wish to speculate that a) there are no clear avenues for certificated teachers to repair the deficiency, and b) there is little reward for doing so.

In any case, in a system where the State mandate requires systems to apply an assessment program the local school officials do not see themselves very capable of managing either formative or summative evaluations, nor do they see their abilities appropriate for making the best curricular applications of assessment data.

Conclusion. The rule that mandated local standards of student performance that were tied to specific objectives has indeed stimulated a considerable amount of curriculum discussion, exchange across educational levels, and has provided more focus for teachers at all levels. It appears to have potential for higher academic achievement by students through its emphasis on skills, its stimulation of remedial work, and its promotion of better sequencing and articulation of topics through curricular interchange.

However, the program can best be promoted if assessment skills in the local schools are at a proficient level. Local personnel appear not to believe that skills are indeed at this level, and this may become the missing piece in the mosaic that makes up the picture laid out in the competency rule.

Table 1. Reading scores in last year before the Rule, and two years after the Rule.

		% in stanine (national norms)			
		1,2,3	4,5,6	7,8,9	N
READING					
Primary	78-79	12	56	32	58,192
	80-81	13	58	29	56,689
Intermediate	78-79	15	58	27	61,815
	80-81	12	59	29	60,894
Junior/Middle	78-79	27	53	20	66,744
	80-81	15	59	26	58,334
High School	78-79	20	56	24	59,537
	80-81	19	57	24	64,387
SPELLING					
Primary	78-79	13	56	31	56,616
	80-81	14	57	29	55,204
Intermediate	78-79	18	56	26	62,348
	80-81	15	57	28	62,663
Junior/Middle	78-79	21	56	23	54,866
	80-81	19	57	24	56,348
High School	78-79	20	58	22	36,021
	80-81	21	56	23	46,732

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STATE-WIDE ACHIEVEMENT ASSOCIATED WITH STATE ASSESSMENT

ABSTRACT

This study shows how achievement scores have changed over a four-year period (1978-79 school year to 1981-82 school year) in the State of Indiana.

The study reports achievement data over four school years from standardized tests administered to approximately one million students per year. The reports show the percent of students performing in each of three bands of stanines--1,2,3; 4,5,6; 7,8,9. Representative grades from Primary, Intermediate, Junior/Middle, and High School are included. Subject areas include reading, composition, spelling, social studies, mathematics, and science.

All achievement score information comes from reports sent to the state educational agency by each local public school district, as well as each certified private school in Indiana.

Overall, Indiana students performed significantly better than national norms in all areas assessed and showed some gains in the years that the state's educational improvement program has been in effect. Achievement shows up slightly better in primary and intermediate levels than at junior/middle and high school. Results in spelling do not show up quite as well as other areas assessed. In general, results contradict current national alarm over achievement in the nation's schools.

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